

Figure 1

OLF1	MEFTD-RMYT	-LVTEFILLG	FPTRPELQIV	LFLMFLTYA	ILLIGNIGLM	LLIRIDPHLO
OLF2	M---D---MQS	S-TPGFLILG	FSEHPGLGRT	LFVDVITSYL	LTLVGWTLTI	LLSALDTRKH
OLF3	MG-TD---MOT	-WVSEFILLG	LSSDWDTRVS	LEVLFVMTV	VTVLGNCLIV	LLIRLDSRLH
14-1	M---DSLNOT	-RVTEFVLG	LTDNRVLEML	FEMAFSAIYM	LTLSGNLTII	IATVTPPSLH
14-2	MEEAILLNOT	SLVTYERLRG	LSVNHKARIA	MFSMFLIPYV	LTLIGNVLIV	ITIIYDHRLLH
	*	*	*	*	**	*
OLF1	TPMYFFLSNL	SFVDLCYFSD	IVPKMLVNFL	SENKSISYTG	CALQFYFFCT	FADTESILLA
OLF2	SPMYFFLSNL	SFLDLGFTTS	CVPMMLANLW	GPKKTISFLD	CSVQIFIFLS	LGTECEILMK
OLF3	TPMYFFLTNL	SLVDVSYATS	VVPQLLAHFL	AEHKALPPOS	CAAQIFYSLA	LGGEFVILLA
14-1	TPMYFFLSNL	SFIDICHSSV	TVPKMLEGLL	LERKTISPDN	CITQLEFLHL	FACAEIFLLI
14-2	TPMYFFLSNL	SFIDVCHSTV	TVPKMLRDVW	SEERLISFDA	CVTOMEFLHL	FACTRIEFLT
	*****	**	*	*	*	*
OLF1	AMAYDRYVAI	CNPELYTVVM	SRGICMRLIV	LSYLGCNMSS	LVHTSPAFIL	KYCDKNVINH
OLF2	VMAFDRIYAV	COPLHYATII	HPRLCQWLAS	VAVVIGLVGS	VVQTPSTLHL	PFCPDROVDD
OLF3	VMAFDRIYAV	CDALRYSAIM	HGGLCARLAI	TSWVSGFISS	PVQTAITFQL	PMCRNKFIIDH
14-1	IVAYDRYVAI	CTPLHYPNVM	NMRVCIQLVF	ALWLGGTVHS	LGQFTLTIRL	PYCGPNIIDS
14-2	VMAFDRIYVAI	CKPLOYMIVM	NWKVCVLLAV	ALWTGGTIHS	IALTSLTIKL	PYCGPDEIDN
	**	*****	*	*	*	*
OLF1	FFCDLPPLLK	LSCTDTTINE	WLLSTYGSSV	EIICFIIIII	SYFFILLSVL	KIRSFSGRKK
OLF2	FVCEVPALIR	LSCEDTSYNE	IQVAVASVFI	LUVPLSLILV	SYGAITWAVL	RINSATAWRK
OLF3	ISCELLAVVR	LACVDTSSNE	VTIMVSSIVL	LMTPLCLVLL	SYIQIISTIL	KIQSREGRKK
14-1	YFCDVPLVIK	LACTDTYLTG	ILIVTNSGTI	SLSCFLAVVT	SYMVIL-VSL	RKHSAGROK
14-2	FFCDVPPQVIK	LACIDTPTSL	ILIVSNSGLI	SVVCFVVLV	SYAVIL-VSL	ROQISKGKWK
	*	*****	*	*	*	*
OLF1	TFSTCASHLT	SVTIYOGTIL	FIYSRPSYLY	SPNTDKIISV	PYTIPTPLVN	PLIYSLRNKD
OLF2	AFGTCSSSHLT	VVTLFYSSVI	AVYLQPKNPY	AQGRGKFEGL	FYAVGTPLSN	PLVYTLRNKE
OLF3	AFHTCASHLT	VVALCYGVAI	FTYIQPHSSP	SVLQEKLFVS	FYAILTPMLN	PMIYSLRNKE
14-1	ALSTCSAHFM	VVALFFGPCI	FIYTRPDTSF	SI--DKVSV	PYTVVTPLLN	PFIYTLRNEE
14-2	ALSTCAHHLT	VVTLFLGHCI	FIYSRPSTSL	PE--DKAVSV	FFTAVTPLLN	PFIYTLRNEE
	*	*	*	*	**	*
OLF1	VKDAAEKVLR	SKVDS--S				
OLF2	IKRALRRRLG	KERDSRESWR	AA			
OLF3	VKGAWQKLLW	KFSG-LTSKL	AT			
14-1	VKSAMKQLRO	ROVF-FT-KS	YT			
14-2	MKSALNKLVG	RK-E-R--KE	EK			
	*	*	*	*	*	*

Figure 2

```

OLF1 MEFTD-RNYT LVTEFILLGF PTRPELOIVL FLMFLTLYAI ILIGNIGEML LIRIDPHLQ-
OLF2 M---D--WQS STPGFILLGF SEHPGLGRTL FVDVITSYLL TLVGNTLLIL LSALDTKLH-
OLF3 MG-TD--WQT WVSEFILLGL SSDWDTRVSL FVLFLVMYVV TVLGNCLIVL LIRLDSRLH-
14-3 ME-RI--NST LLTAFILTGI PYPLRLRTLY FVFFFLIYIL TOLGNLLILI TVWADPRLHA
      *      *      * * *      *      *      **      * *
OLF1 TPNYFFLSNL SFVLCYFSD IVPKMLVNL SENKSISYYG CALQFYFFCT PADTESFILA
OLF2 SPNYFFLSNL SFLDLCFTTS CVPQMLANLW GPKRTISFLD CSVOIFIFLS LGTTECILMK
OLF3 TPNYFFLTNL SLVDVSYATS VVPQLLAHPL AEHKAIPFQS CAAOLFESLA LGGTEFVELA
14-3 RPNYIFLGVL SVIDMSISSI IVPRLMNT LGVKPIPEGG CVAQLYFYHF LGSTOCFLYT
      *** * *      * *      **      * *      * *
OLF1 AMAYDRIVAI CNPLLYTVVM SRGICMLIV LSYLGGNMSS LVHTSFAPIL KYCDKNVINH
OLF2 VMAFDRIVAV COPLHYATIL HPRLCWOLAS VAWVIGLVGS VVQTPSTLHL PFCPDROVDD
OLF3 VMAYDRIVAV CDALRYSAIM HGGLCARLAI TSWVSGFISS PVQTAITPOL PMCRNKFIDH
14-3 LMAFDRYLAI COPLRYPVLM TAKLSALLVA GAWMAGSIHG ALQAILTFRL PYCGPNOVDY
      ** * * *      * * *      *      *      *
OLF1 FFCDLFPLLK LSCTDTTINE WLLSTYGSSV EIICFIIIII SYFFILLSVL KIRSFSGRKK
OLF2 FVCEVPALIR LSCEDTSYNE IOQAVASVFI LVVPLSLILV SYGAIWAVL RINSATAWRK
OLF3 ISCELLAVVR LACVDTSSNE VTIMVSSIVL LMTPLCLVLL SYIQIISTIL KIQSREGRKK
14-3 FFCDIPAVLR LACADTTVNE LVTFVDIGVV VASCFSLILL SYIQIQAAIL RIHTADGRRR
      *      * * * * *      *      *      *      *
OLF1 TFSTCASHLT SVTIYQGTL FIYSRPSYLY SPNTDKIISV FYTIFIPVLN PLIYSLRNKD
OLF2 AFGTCSSHLT VVTLFYSSVI AVYLOPKNPY AQGRGKFFGL FYAVGTPSLN PLVYTLRNKE
OLF3 AFHTCASHLT VVALCYGVAI FTYIQPHSSP SVLQEKLSV FYAILTPMLN PMIYSLRNKE
14-3 AFSTCGAHVT VVTVYVPCA PIYLRPETNS PLD-GAAALV PTAI-TPPLN PLIYTLRNKE
      * * * * *      * *      * * * * *
OLF1 VKDAAEKVL- -RSKVDSS
OLF2 IKRALRRILG KERDSRESWR AA
OLF3 VKGAWOKLLW KFSGL-TSKL AT
14-3 VKLAL-KRM- LRSPTPSEV
      * *      *

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Figure 3

OLF1 MEFTD-RMYT -LVTEFILLG FPTRPELOIV LFLMFLTYA IILIGNIGLM ELIRIDPHEQ
 OLF2 M---DMQS-- S-TPGFILLG FSEHPGLGRT LFVDVITSYL LTLVGNILTI LLSALDTKLH
 OLF3 MG-TDMQT-- -WSEFILLG LSSDHDTRVS LFLVFLVMYV VTVIGNCLIV ELIRLDSRLH
 14-4 MGKTKMTSLD TVVRDFILLG LSHPPNIRSL LFLVFFVIYI LTOLGNLLIL LTVWADPKLR
 14-5 MGKTKMTSLD AVVTDFILLG LSHPPNLRSL LFLVFFIYI LTOLGNLLIL LTMWADPKLC
 * * * * * ** * * * *
 OLF1 T-PMYFFLSN LSFVLCYFS DIVPKMLVNE LSENKSISYV GCALQYFFC TPADTESFIL
 OLF2 S-PMYFFLSN LSFIDLCPFT SCVPQMLANL WGPKKTIISYL DCSVQIFIEL SIGTTECIIM
 OLF3 T-PMYFFLTN LSLVDVSYAT SVVPOLLAHF LAEHKAIPFQ SCARQLFFSL ALGGIEFVLL
 14-4 ARPMYILLGV LSFIDMWLSS VIVP*LILNF TPANKAIPFG GCVAQLYFFH FLGSTOCTLY
 14-5 ARPMYILLGV LSFIDMWLSS VIVPRLILDF TPSIKAIPFG GCVAQLYFFH FLGSTOCTLY
 *** * ** * ** * * * *
 OLF1 AAMAYDRIYA ICNPLLYTVV MSRGICMRII VLSYLGGNMS SLVHTSFAFI LKYCDKNVIN
 OLF2 KVMAFDRIYA VCOPLHYATI IHPRLCWOLA SVANVIGLVG SVVQTPSTLH LPFCPDROVD
 OLF3 AVMAFDRIYA VCDALRYSAI MHGGLCARLA ITSWSGFIS SPVQTAITFQ LPMCRNKFID
 14-4 TLMAYDRILA ICQPLRYPVL MNGRLCTVLV AGAWVAGSMH GSIQATLTFR LPYCGPNQVD
 14-5 TLMAYDRILA ICQPLHYPVL MNGRLCTVLV AGAWVAGSMH GSIQATLTFR LPYCGPNQVD
 * * * * * * * * * *
 OLF1 HFTCDLPPLL KLSCTDTTIN EWLLSTYGSS VEIICFIIII ISYFFILLSV LKIRSFSGRK
 OLF2 DFVCEVPALI RLSCEDTSYN EIOVAVASVF ILVVPLSLIL VSYGAIWAV LRINSATAMR
 OLF3 HISCELLAVV RIACVDTSN EVTIMVSSIV LMTPCLVL LSYIQIISTE LKIQSREGRK
 14-4 YFICDIPAVL RIACADTTVN ELVTFVDIGV VAASCPMLIL LSYANIVNAI LKIRTTDGRR
 14-5 YFICDIRAVL RIACADTTVN ELVTFVDVRV VAASCPMLIL LSYANIVHAI LKIRTTDGRR
 * * * * * * * * * *
 OLF1 KTFSTCASHL TSVTIYQGTI LFIYSRPSYL YSPNTDKIIS VFYTFIPVL NPLIYSLRNM
 OLF2 KAFGTCSHL TVVTFYSSV IAVYLOPKNP YAQGRGKFFG LFYAVGTPSL NPLVYTLRNM
 OLF3 KAFHTCASHL TVVALCYGVA IFTYIOPHSS PSVLOEKLFV VFYAILTPML NPMIYSLRNM
 14-4 RAFSTCGSHL IVVTVYVPC IFIYLRAGSK G-PLDG-AAA VFYTVVTPLE NPLIYTLRNO
 14-5 RAFSTCGSHL IVVTVYVPC IFIYLRAGSK D-PLDG-AAA VFYTVVTPLE NPLIYTLRNO
 * * * * * * * * * *
 OLF1 DVKDAAEKVLR SKVDS--S
 OLF2 EIKRALRRLLG KERDSRESWR AA
 OLF3 EVKGAWOKLEW KFSG-LTSKL AT
 14-4 EVKSAL-KRI- -TAGQTE
 14-5 EVKSAL-KRI- -TAG

Figure 4

1 ATGGACAGTC TAAACCAAAC AAGAGTGACT GAATTTGTCT TCTTGGGACT
51 CACTGATAAC CGGGTGCTGG AAATGCTGTT TTTCATGGCA TTCTCAGCCA
101 TTTATATGCT AACGCTTTCA GGGAACATTC TCATCATCAT TGCCACAGTC
151 TTTACTCCAA GTCTCCATAC CCCCATGTAT TTCTTCCTGA GCAATCTGTC
201 CTTTATTGAC ATCTGCCACT CATCTGTCAC TGTGCCTAAG ATGTTGGAGG
251 GTTTGCTTTT AGAAAGAAAG ACCATTTCTT TTGACAACTG CATCACACAG
301 CTCCTTCTCC TACATCTCTT TGCCTGTGCC GAGATCTTTC TGCTGATCAT
351 TGTGGCGTAT GATCGTTACG TGGCTATCTG CACTCCACTC CACTACCCCA
401 ATGTGATGAA CATGAGAGTC TGTATACAGC TTGTCTTTGC TCTCTGGTTG
451 GGGGGTACTG TTCACTCACT AGGGCAGACC TTCTTGACTA TTCGTCTACC
501 TTACTGTGGC CCCAACATTA TTGACAGCTA CTTCTGTGAT GTGCCTCTTG
551 TTATCAAGCT GGCCTGCACA GATACATACC TCACAGGAAT ACTGATTGTG
601 ACCAATAGTG GAACCATCTC CCTCTCCTGT TTCTTGCCCG TGGTCACCTC
651 CTATATGGTC ATCCTGGTTT CTCTTCGAAA AACTCAGCT GAAGGGCGCC
701 AGAAAGCCCT GTCTACCTGC TCGGCCCACT TCATGGTGGT TGCCCTCTTC
751 TTTGGGCCAT GTATCTTCAT CTATACTCGG CCAGACACCA GCTTCTCCAT
801 TGACAAGGTG GTGTCTGTCT TCTACACAGT GGTCACCCCT TTGCTGAATC
851 CCTTCATTTA CACCTTGAGG AATGAGGAGG TAAAAAGTGC CATGAAGCAG
901 CTCAGGCAGA GACAAGTTTT TTTCACGAAA TCATATACAT AA

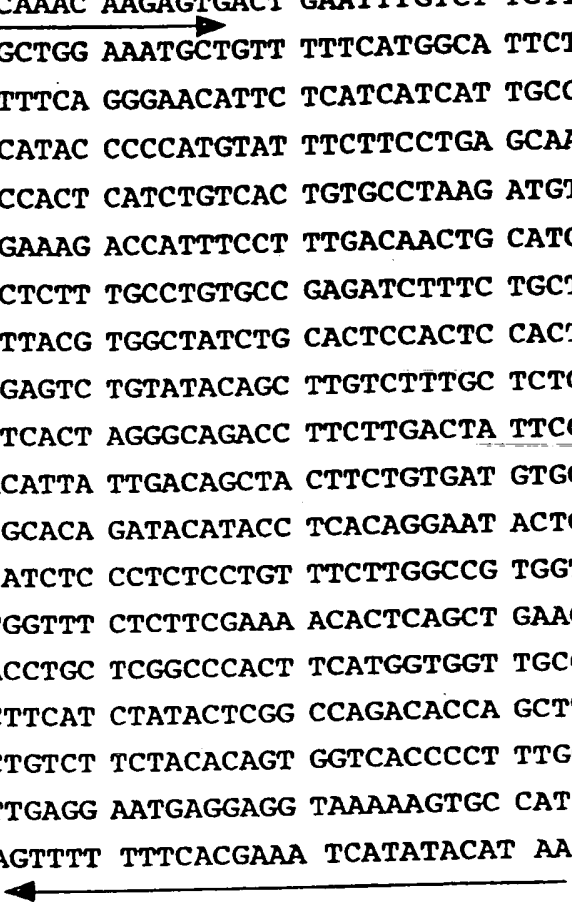


Figure 5

1 ATGGAAAGAA TCAACAGCAC ACTGTTGACT GCGTTTATCC TGACAGGAAT
51 TCCGTATCCA CTCAGGCTAA GGACACTCTT TTTTGTGTTC TTTTTTCTAA
101 TCTACATCCT GACTCAGCTG GGAAACCTGC TTATTTTAAT CACTGTCTGG
151 GCAGACCCAA GGCTCCATGC CCGCCCCATG TACATCTTTC TTGGTGTCT
201 CTCAGTCATT GATATGAGCA TCTCCTCCAT CATTGTCCCT CGCCTCATGA
251 TGAAC TTCAC TTTAGGTGTC AAACCCATCC CATTGGGTGG CTGTGTTGCT
301 CAACTCTATT TCTATCACTT CCTGGGCAGC ACCCAGTGCT TCCTCTACAC
351 CCTAATGGCC TATGACAGGT ACCTGGCAAT ATGTCAGCCC CTGCGCTACC
401 CTGTGCTCAT GACTGCTAAG CTGAGCGCCT TGCTTGTGGC TGGAGCCTGG
451 ATGGCAGGAT CCATCCATGG GGCTCTCCAG GCCATCCTAA CCTTCCGCCT
501 GCCCTACTGT GGGCCCAATC AGGTGGATTA CTTCTTCTGT GACATCCCTG
551 CAGTGTTGAG ACTGGCCTGT GCTGACACAA CAGTCAACGA GCTGGTGACG
601 TTTGTAGACA TTGGGGTGGT GGTTGCCAGT TGCTTCTCCC TGATCCTCCT
651 CTCCTACATA CAGATCATTC AGGCCATCCT GAGAATCCAC ACAGCTGATG
701 GGC GCGCCG GGCTTTTTCA ACTTGTGGAG CCCATGTAAC CGTGGTCACC
751 GTGTACTATG TGCCCTGTGC CTTCATCTAC CTGAGGCCTG AAACCAACAG
801 CCCCTGGAT GGGGCAGCTG CCCTAGTCCC CACGGCCATC ACTCCTTTCC
851 TCAACCCCT TATCTACACT CTGCGGAACC AAGAGGTGAA GCTGGCCCTG
901 AAAAGAATGC TCAGAAGCCC AAGAACTCCG AGTGAGGTTT GA




Figure 6

1 ATGGGAAAGA CCAAAAACAC ATCGCTGGAT GCCGTGGTGA CAGATTTTCAT
51 TCTTCTGGGT TTGTCTCACC CCCCAAATCT AAGAAGCCTC CTCTTCCTGG
101 TCTTCTTCAT CATTTACATC CTCACTCAGC TGGGGAACCT GCTCATTCTG
151 CTCACCATGT GGGCTGACCC GAAGCTCTGT GCTCGCCCCA TGTACATTCT
201 TCTGGGAGTG CTCTCATTCC TGGACATGTG GCTCTCCTCA GTCACCGTTC
251 CTCGGCTTAT TTTGGATTTT ACTCCTTCCA TCAAGGCTAT CCCGTTTGGT
301 GGCTGTGTGG CTCAACTGTA TTTCTTTTAC TTCCTGGGCA GCACCCAGTG
351 CTTCTCTTAC ACCTTGATGG CCTATGACAG GTACCTAGCA ATATGTCAGC
401 CCCTGCACTA CCCAGTGCTC ATGAATGGGA GGTATGCAC AGTCCTTGTG
451 GCTGGAGCTT GGGTCGCCGG CTCCATGCAT GGGTCTATCC AGGCCACCTT
501 GACCTTCCGC CTGCCCTACT GTGGGCCCAA TCAGGTGGAT TACTTTATCT
551 GTGACATCCG CGCAGTATTG AGACTGGCCT GTGCTGACAC AACTGTCAAT
601 GAGCTTGTGA CCTTTGTGGA CGTCAGGGTA GTGGCCGCCA GTTGCTTCAT
651 GTTAATTCTG CTCTCCTATG CCAACATAGT CCATGCCATC CTGAAGATAC
701 GCACCGCTGA TGGGAGGCGC CGGGCCTTCT CCACCTGTGG CTCCCACCTA
751 ATCGTGGTCA CAGTCTACTA TGTCCCCTGT ATTTTCATCT ACCTTAGGGC
801 TGGCTCCAAA GACCCCCTGG ATGGGGCAGC GGCTGTGTTT TAACTGTGTG
851 TCACTCCATT ACTGAACCCC CTCATCTATA CACTGAGGAA CCAGGAAGTG
901 AAGTCTGCCC TGAAGAGGAT AACAGCAGGT TGA

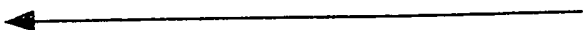


Figure 7

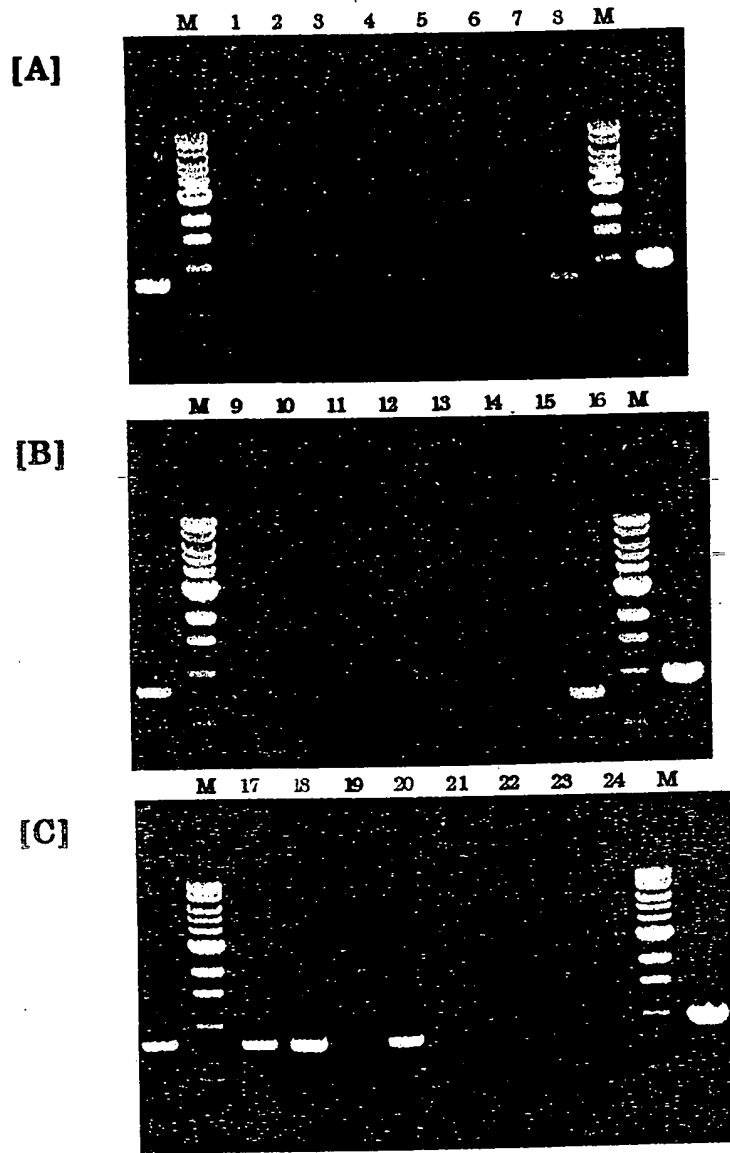


Figure 8

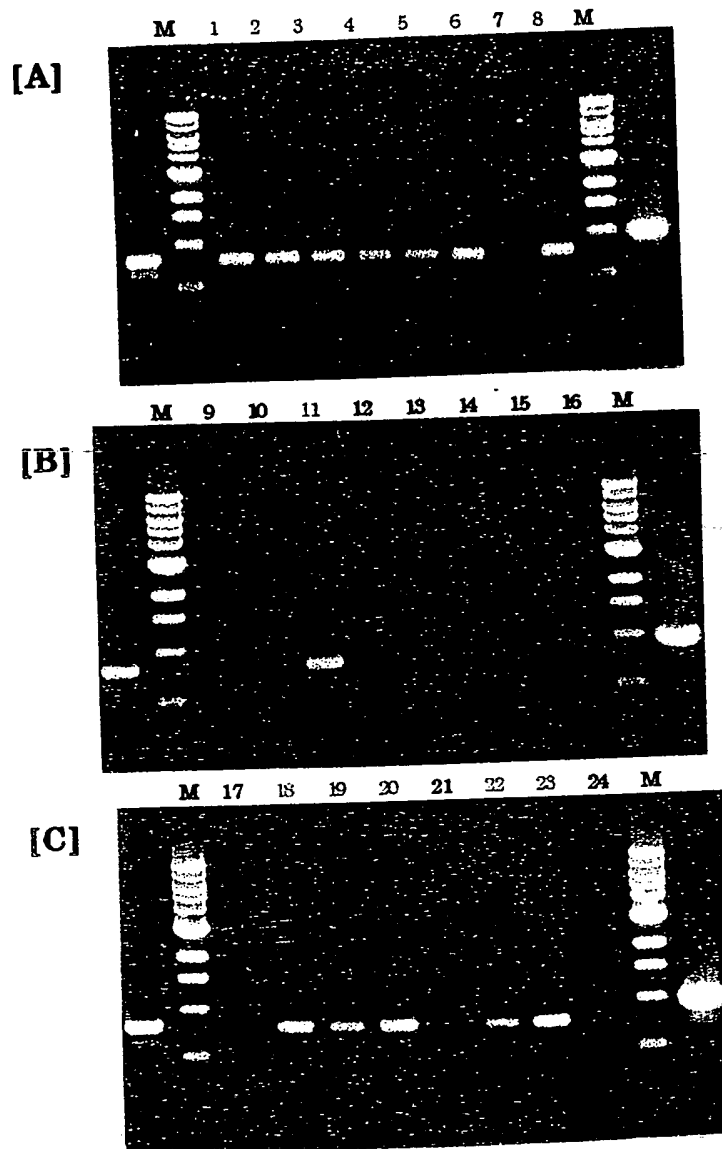


Figure 9

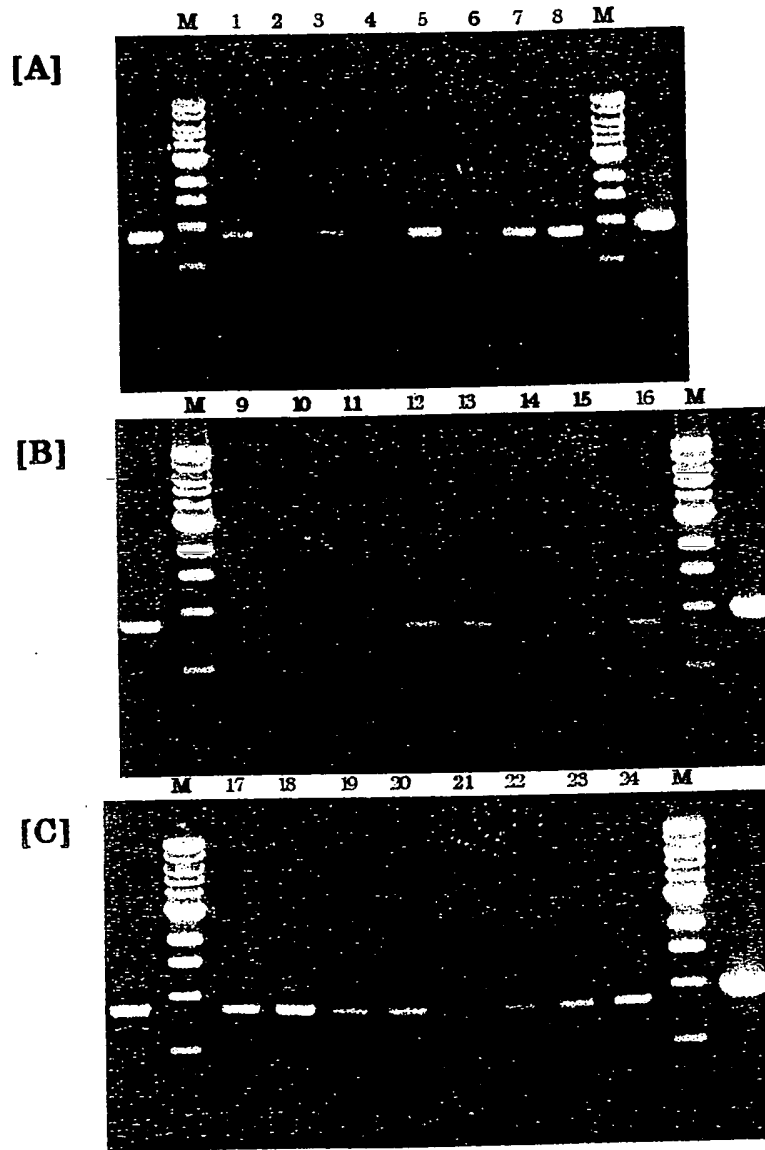


Figure 10

1 CTCATTGAATGGACAGTCTAAACCAAACAAGAGTGAATTTGTCTTCTGGGACTCA
MetAspSerLeuAsnGlnThrArgValThrGluPh ValPheLeuGlyLeuThr

61 CTGATAACCGGGTGCTGGAAATGCTGTTTTTCATGGCATTCTCAGCCATTTATATGCTAA
AspAsnArgValLeuGluMetLeuPhePheMetAlaPheSerAlaIleTyrMetLeuThr
TM-I

121 CGCTTTCAGGGAACATTCTCATCATCATTGCCACAGTCTTTACTCCAAGTCTCCATACCC
LeuSerGlyAsnIleLeuIleIleIleAlaThrValPheThrProSerLeuHisThrPro

,181 CCATGTATTTCTCCTGAGCAATCTGTCCTTTATTGACATCTGCCACTCATCTGTCACTG
MetTyrPhePheLeuSerAsnLeuSerPheIleAspIleCysHisSerSerValThrVal
TM-II

241 TGCCTAAGATGTTGGAGGGTTTGCTTTTAGAAAGAAAGACCATTTCTTTGACAACTGCA
ProLysMetLeuGluGlyLeuLeuLeuGluArgLysThrIleSerPheAspAsnCysIle

301 TCACACAGCTCTTCTTCCTACATCTCTTGCCCTGTGCCGAGATCTTTCTGCTGATCATTG
ThrGlnLeuPhePheLeuHisLeuPheAlaCysAlaGluIlePheLeuLeuIleIleVal
TM-III

361 TGGCGTATGATCGTTACGTGGCTATCTGCACTCCACTCCACTACCCCAATGTGATGAACA
AlaTyrAspArgTyrValAlaIleCysThrProLeuHisTyrProAsnValMetAsnMet

421 TGAGAGTCTGTATACAGCTTGTCTTTGCTCTCTGGTTGGGGGTACTGTTCACTCACTAG
ArgValCysIleGlnLeuValPheAlaLeuTrpLeuGlyGlyThrValHisSerLeuGly
TM-IV

481 GGCAGACCTTCTTGACTATTCTGTCTACCTTACTGTGGCCCCAACATTATTGACAGCTACT
GlnThrPheLeuThrIleArgLeuProTyrCysGlyProAsnIleIleAspSerTyrPhe

541 TCTGTGATGTGCCTCTTGTTATCAAGCTGGCCTGCACAGATACATACCTCACAGGAATAC
CysAspValProLeuValIleLysLeuAlaCysThrAspThrTyrLeuThrGlyIleLeu

601 TGATTGTGACCAATAGTGAACCATCTCCCTCTCCTGTTTCTTGGCCGTGGTCACCTCCT
IleValThrAsnSerGlyThrIleSerLeuSerCysPheLeuAlaValValThrSerTyr
TM-V

661 ATATGGTCATCCTGGTTTCTCTTCGAAACACTCAGCTGAAGGGCGCCAGAAAGCCCTGT
MetValIleLeuValSerLeuArgLysHisSerAlaGluGlyArgGlnLysAlaLeuSer

Figure 11

721 CTACCTGCTCGGCCCACTTCATGGTGGTTGCCCTCTTCTTTGGGCCATGTATCTTCATCT
ThrCysSerAlaHisPheMetValValAlaLeuPhePheGlyProCysIlePheIleTyr
TM-VI

781 ATACTCGGCCAGACACCAGCTTCTCCATTGACAAGGTGGTGTCTGTCTTCTACACAGTGG
ThrArgProAspThrSerPheSerIleAspLysValValSerValPheTyrThrValVal

841 TCACCCCTTTGCTGAATCCCTTCATTTACACCTTGAGGAATGAGGAGGTAAAAAGTGCCA
ThrProLeuLeuAsnProPheIleTyrThrLeuArgAsnGluGluValLysSerAlaMet
TM-VII

901 TGAAGCAGCTCAGGCAGAGACAAGTTTTTTTACGAAATCATATACATAATGGGCATTGG
LysGlnLeuArgGlnArgGlnValPhePheThrLysSerTyrThr***

961 GATTGCAGACATAATTGCAGCCACATCCTTAATGAAAGAGCAAAGTAAAGAGTCAAAAT

1021 CAACTTATATAACTTGGTAAATTAGGTAAAATGGCATAGAGCAGGTCAGATTTCTGCTCA

1081 TTAAAGATAAGAACTTATTCTGTTCATTAAAGATAAGAACTTATTAAGTATTATTTAAAT

1141 AAA

Figure 12

1 ATTCTCTGGGATATGGAAAGAATCAACAGCACACTGTTGACTGCGTTTATCCTGACAGGA
MetGluArgIleAsnSerThrLeuLeuThrAlaPheIleLeuThrGly
61 ATTCCGTATCCACTCAGGCTAAGGACACTCTTTTTTGTGTTCTTTTTTCTAATCTACATC
IleProTyrProLeuArgLeuArgThrLeuPhePheValPhePhePheLeuIleTyrIle
121 CTGACTCAGCTGGGAAACCTGCTTATTTTAATCACTGTCTGGGCAGACCCAAGGCTCCAT
LeuThrGlnLeuGlyAsnLeuLeuIleLeuIleThrValTrpAlaAspProArgLeuHis
TM-I
181 GCCCGCCCCATGTACATCTTTCTTGGTGTCTCTCAGTCATTGATATGAGCATCTCCTCC
AlaArgProMetTyrIlePheLeuGlyValLeuSerValIleAspMetSerIleSerSer
TM-II
241 ATCATTGTCCCTCGCCTCATGATGAACCTTCACTTTAGGTGTCAAACCCATCCCATTGTT
IleIleValProArgLeuMetMetAsnPheThrLeuGlyValLysProIleProPheGly
301 GGCTGTGTTGCTCAACTCTATTTCTATCACTTCCTGGGCAGCACCCAGTGCTTCCTCTAC
GlyCysValAlaGlnLeuTyrPheTyrHisPheLeuGlySerThrGlnCysPheLeuTyr
TM-III
361 ACCCTAATGGCCTATGACAGGTACCTGGCAATATGTCAGCCCCCTGCGCTACCCTGTGCTC
ThrLeuMetAlaTyrAspArgTyrLeuAlaIleCysGlnProLeuArgTyrProValLeu
421 ATGACTGCTAAGCTGAGCGCCTTGCTTGTGGCTGGAGCCTGGATGGCAGGATCCATCCAT
MetThrAlaLysLeuSerAlaLeuLeuValAlaGlyAlaTrpMetAlaGlySerIleHis
TM-IV
481 GGGGCTCTCCAGGCCATCCTAACCTTCCGCCTGCCCTACTGTGGGCCCAATCAGGTGGAT
GlyAlaLeuGlnAlaIleLeuThrPheArgLeuProTyrCysGlyProAsnGlnValAsp
541 TACTTCTTCTGTGACATCCCTGCAGTGTGAGACTGGCCTGTGCTGACACAACAGTCAAC
TyrPhePheCysAspIleProAlaValLeuArgLeuAlaCysAlaAspThrThrValAsn
601 GAGCTGGTGACGTTTGTAGACATTGGGGTGGTGGTTGCCAGTTGCTTCTCCCTGATCCTC
GluLeuValThrPheValAspIleGlyValValValAlaSerCysPheSerLeuIleLeu
TM-V
661 CTCTCCTACATACAGATCATTGAGGCCATCCTGAGAATCCACACAGCTGATGGGCGGCGC
LeuSerTyrIleGlnIleIleGlnAlaIleLeuArgIleHisThrAlaAspGlyArgArg

Figure 13

721 CGGGCTTTTCAACTTGTGGAGCCCATGTAACCGTGGTCACCGTGTACTATGTGCCCTGT
ArgAlaPheSerThrCysGlyAlaHisValThrValValThrValTyrTyrValProCys
TM-VI

781 GCCTTCATCTACCTGAGGCCTGAAACCAACAGCCCCCTGGATGGGGCAGCTGCCCTAGTC
AlaPheIleTyrLeuArgProGluThrAsnSerProLeuAspGlyAlaAlaAlaLeuVal

841 CCCACGGCCATCACTCCTTTCCTCAACCCCTTATCTACACTCTGCGGAACCAAGAGGTG
ProThrAlaIleThrProPheLeuAsnProLeuIleTyrThrLeuArgAsnGlnGluVal
TM-VII

901 AAGCTGGCCCTGAAAAGAATGCTCAGAAGCCCAAGAACTCCGAGTGAGGTTTGAAAGTGT
LysLeuAlaLeuLysArgMetLeuArgSerProArgThrProSerGluVal***

961 CTTTCTCCCACTAGGGAAGCTGCCACAATTAGAATTTATTATAATGTTTAGGCTTCGGTA

1021 ACTTTTTCTTTCTTCTTGTTTTTCTCTTTTATATAGCCATACTGTATGATCAAACAC

1081 AGTTTAAGGTAAAATACTAACTTTCTAACAGTTCCTTAGTATCCTCTCAAGATAACTCTC

1141 AGCCACTGCAAGAGTAGAGAATGAGACCAAATTCTCACAACTAAACCACATTAAACAAT

1201 CCAGAAGAAAGAATGCAATAGTGTATTTTCCAATGTCTCAGTAATAAA

Figure 14

1 GGCAACCTAAAAGCAAGCATGGACAGTTCCTTGGTGAATAACCAAAAACAAGATGGAGTC
61 TCGCTCTGTTGCCCAGGCTGGAGTGTAGTGGCGCCATCTCGGCTCGCTGCGGTCTCCGCC
121 TCCCGGGTTCAGGCGATTCTCCGGCCTCAGCCTCCCGGGTGCCTGGGATTGCAGGAACATA
181 GAACTAAAGCGAGGTTAATTTCCACAGTGAGAACATGCTCCAGACATCCGAGCACCAGTG
241 TGGCTCTGGAACTCCACAGATACCACAGGACTAGAAAATAACTGGACAATGGGATGTTC
301 TATCTTGCCCGAACTGAGGGATATAAAAAGCTCCAAAGACAAAGAAAGTACCATCCACCC
361 ATCCCAAAAGAAATTATCCTTCCTTCTGAAAATAAGACTGCAAAAAGACATGGGAAAGAC
MetGlyLysThr
421 CAAAAACACATCGCTGGATGCCGTGGTGACAGATTTCAATTCTTCTGGGTTTGTCTCACCC
LysAsnThrSerLeuAspAlaValValThrAspPheIleLeuLeuGlyLeuSerHisPro
481 CCCAAATCTAAGAAGCCTCCTCTTCCTGGTCTTCTTCATCATTACATCCTCACTCAGCT
ProAsnLeuArgSerLeuLeuPheLeuValPhePheIleIleTyrIleLeuThrGlnLeu
TM-I
541 GGGGAACCTGCTCATTCTGCTCACCATGTGGGCTGACCCGAAGCTCTGTGCTCGCCCCAT
GlyAsnLeuLeuIleLeuLeuThrMetTrpAlaAspProLysLeuCysAlaArgProMet
601 GTACATTCTTCTGGGAGTGCTCTCATTCTGACATGTGGCTCTCCTCAGTCACCGTTCC
TyrIleLeuLeuGlyValLeuSerPheLeuAspMetTrpLeuSerSerValThrValPro
TM-II
661 TCGGCTTATTTTGGATTTTACTCCTTCCATCAAGGCTATCCCGTTTGGTGGCTGTGTGGC
ArgLeuIleLeuAspPheThrProSerIleLysAlaIleProPheGlyGlyCysValAla
721 TCAACTGTATTTCTTTCACTTCCTGGGCAGCACCAGTGCTTCCTCTACACCTTGATGGC
GlnLeuTyrPhePheHisPheLeuGlySerThrGlnCysPheLeuTyrThrLeuMetAla
TM-III
781 CTATGACAGGTACCTAGCAATATGTCAGCCCTGCACTACCCAGTGCTCATGAATGGGAG
TyrAspArgTyrLeuAlaIleCysGlnProLeuHisTyrProValLeuMetAsnGlyArg
841 GTTATGCACAGTCCTTGTGGCTGGAGCTTGGGTCGCCGGCTCCATGCATGGGTCTATCCA
LeuCysThrValLeuValAlaGlyAlaTrpValAlaGlySerMetHisGlySerIleGln
TM-IV
901 GGCCACCTTGACCTTCGCTGCCCCTACTGTGGGCCCAATCAGGTGGATTACTTTATCTG
AlaThrLeuThrPheArgLeuProTyrCysGlyProAsnGlnValAspTyrPheIleCys

Figure 15

961 TGACATCCGCGCAGTATTGAGACTGGCCTGTGCTGACACAACTGTCAATGAGCTTGTGAC
AspIleArgAlaValLeuArgLeuAlaCysAlaAspThrThrValAsnGluLeuValThr

1021 CTTTGTGGACGTCAGGGTAGTGGCCGCCAGTTGCTTCATGTTAATTCTGCTCTCCTATGC
PheValAspValArgValValAlaAlaSerCysPheMetLeuIleLeuLeuSerTyrAla
TM-V

1081 CAACATAGTCCATGCCATCCTGAAGATACGCACCGCTGATGGGAGGCGCCGGCCTTCTC
AsnIleValHisAlaIleLeuLysIleArgThrAlaAspGlyArgArgAlaPheSer

1141 CACCTGTGGCTCCACCTAATCGTGGTCACAGTCTACTATGTCCCCTGTATTTTCATCTA
ThrCysGlySerHisLeuIleValValThrValTyrTyrValProCysIlePheIleTyr
TM-VI

1201 CCTTAGGGCTGGCTCCAAAGACCCCCTGGATGGGGCAGCGGCTGTGTTTTACACTGTTGT
LeuArgAlaGlySerLysAspProLeuAspGlyAlaAlaAlaValPheTyrThrValVal

1261 CACTCCATTACTGAACCCCTCATCTATACACTGAGGAACCAGGAAGTGAAGTCTGCCCT
ThrProLeuLeuAsnProLeuIleTyrThrLeuArgAsnGlnGluValLysSerAlaLeu
TM-VII

1321 GAAGAGGATAACAGCAGGTGAAGGACTGAATGAAAATAAGTAACTACATCTGCATCATT
LysArgIleThrAlaGly***

1381 ATCACTGCCACTCTCTTCAGCTACTGCTGCATGTGACAAATGCCCAATAAA

Figure 16

1 CAGCAGCTTGTCCTTCGTCGATTTCTGCTATTCCCTCTGTCATTACTCCCA
51 AAATGCTGGTGAACCTCCTAGGAAAGAAGAATACAATCCTTTACTCTGAG
101 TGCATGGTCCAGCTCTTTTCTTTGTGGTCTTTGTGGTGGCTGAGGGTTA
151 CCTCCTGACTGCCATGGCATATGATCGCTATGTTGCCATCTGTAGCCCAC
201 TGCTTTATAATGCGATCATGTCCTCATGGGTCTGCTCACTGCTAGTGCTG
251 GCTGCCTTCTTCTTGGGCTTTCTCTCTGCCTTGACTCATAACAAGTGCCAT
301 GATGAAACTGTCCTTTTGCAAATCCCACATTATCAACCATTACTTCTGTG
351 ATGTTCTTCCCCTCCTCAATCTCTCCTGCTCCAACACACACCTCAATGAG
401 CTTCTACTTTTATCATTGCGGGGTTTAACACCTTGGTGCCCAACCCTAGC

Figure 17

1 CATGGTAGGCAACCTTGGCTTGATCACTCTTTTCGGTCTAAATTCTCACC
51 TCCACACACCAATGTACTATTTCCCTCTTCAATCTCTCCTTCATTGATCTC
101 TGTTACTCCTCTGTTTTCACTCCCAAATGCTAATGAACTTTGTGTCAAA
151 AAAGAATATTATCTCCAATGTTGGGTGCATGACTCGGCTGTTTTCTTTT
201 TCTTTTTTCGTCATCTCTGAATGTTACATGTTGACCTCAATGGCATATGAT
251 CGCTATGTGGCCATCTGTAATCCATTGCTGTATAAGGTCACCATGTCCCA
301 TCAGGTCTGTTCTATGCTCACTTTTGCTGCTTACATAATGGGATTGGCTG
351 GAGCCACGGCCCACACCGGGTGCATGTTTAGACTCACCTTCTGCAGTGCT
401 AATATCATTAAACCATTACTTGTGTGACATACTCCCCCTCCTCCAGCTTTC
451 CTGCACCAGCACCTATGTCAACGAGGTGGTTGTTCTCATTGTTGTGGGTA
501 CTAATATCACGGTACCCAGTTGTACCATCCTCATTTCCTATGTTTTTCATT
551 GTCACTAGCATTCCTTCATATCAAATCCACTCAAGGAAGATCAAAAGCCTT
601 CAGTACTTGTAGCTCTCATGTCATTGCTCTGTCTCTG

Figure 18

09/807132

1 CATGGTAGGCAACCTTGGCTTGATCATTCTTTTCGGTCTAAATTCTCACC
51 TCCACACACCAATGTACTATTTCTCTTCAATCTCTCCTTCATTGATCTC
101 TGTTACTCCTCTGTTTTCACTCCCAAAATGCTAATGAACTTTGTATCAAA
151 AAAGAATATTATCTCCTATGTTGGGTGCATGACTCAGCTGTTTTTCTTTTC
201 TCTTTTTTGTTCATCTCTGAATGCTACATATTGACCTCAATGGCATATGAT
251 CGCTATGTGGCCATCTGTAATCCATTGCTGTATAAGGTCACCATGTCCCA
301 TCAGGTCTGTTCTATGCTCACTTTTGCTGCTTACATAATGGGATTGGCTG
351 GAGCCACGGCCACACCGGGTGCATGCTTAGACTCACCTTCTGCAGTGCT
401 AATATCATCAACCATTACTTGTGTGACATACTCCCCCTCCTCCAGCTTTC
451 CTGCACCAGCACCTATGTCAACGAGGTGGTTGTTCTCATTGTTGTGGGTA
501 TTAATATCATGGTACCCAGTTGTACCATCCTCATTCTTATGTTTTTCATT
551 GTCACTAGCATTCCTTCATATCAAATCCACTCAAGGAAGATCAAAAGCCTT
601 CAGTACTTGTAGCTCTCATGTCATTGCTCTGTCTCTG

Figure 19

1 CCTTTATAGATCTCTGTTATTCCGTGTGTTTACCCCCAAAATGCTGAAT
51 GACTTTGTTTCAGAAAGTATCATCTCTTATGTGGGATGTATGACTCAGCT
101 ATTTTTCTTCTGTTTCTTTGTCAATTCTGAGTGCTATGTGTTGGTATCAA
151 TGGCCTATGATCGCTATGTGGCCATCTGCAACCCCTGCTCTACATGGTC
201 ACCATGTCCCCAAGGGTCTGCTTTCTGCTGATGTTTGGTTCCCTATGTGGT
251 AGGGTTTGCTGGGGCCATGGCCCACACTGGAAGCATGCTGCGACTGACCT
301 TCTGTGATTCCAACGTCATTGACCATTATCTGTGTGACGTTCTCCCCCTC
351 TTGCAGCTCTCCTGCACCAGCACCCATGTCAGTGAGCTGGTATTTTTTCAT
401 TGTGTGTTGGAGTAATCACCATGCTATCCAGCATAAGCATCGTCATCTCTT
451 ACGCTTTGATACTCTCCAACATCCTCTGTATTCTTCTGCAGAGGGCAGA
501 TCCAAAGCC

Figure 20

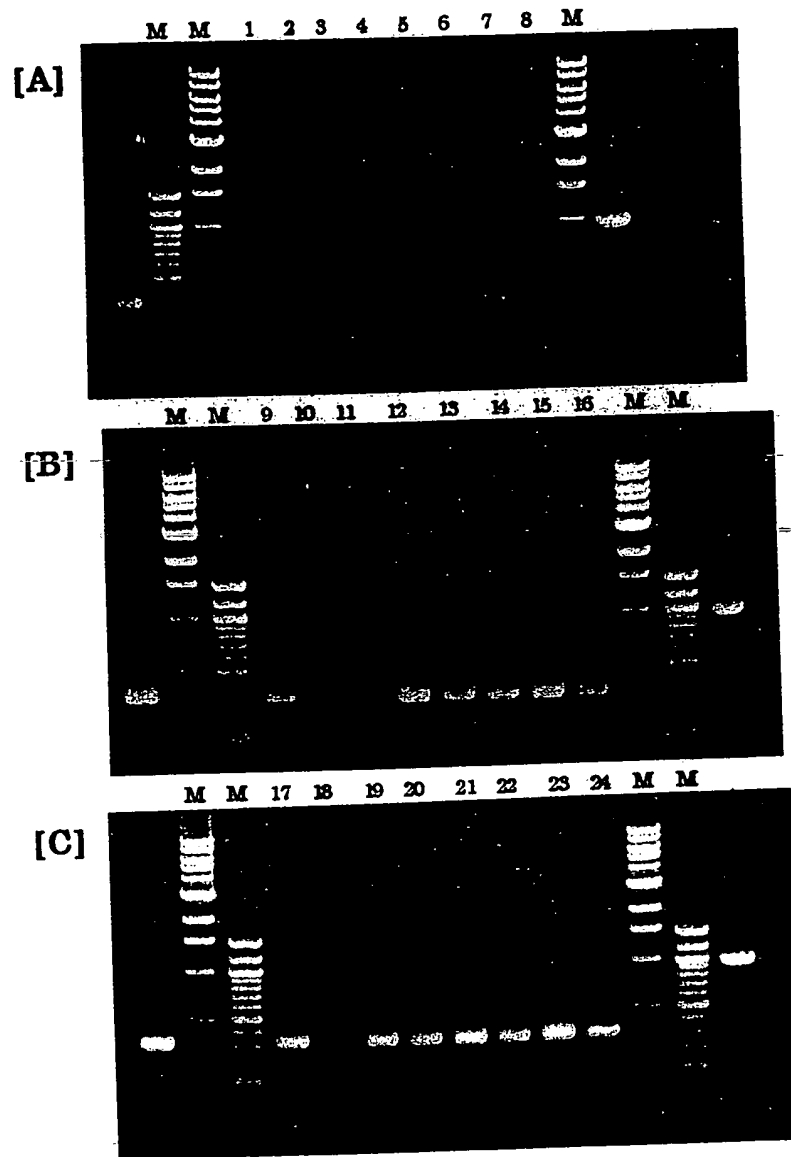


Figure 21

09/807132

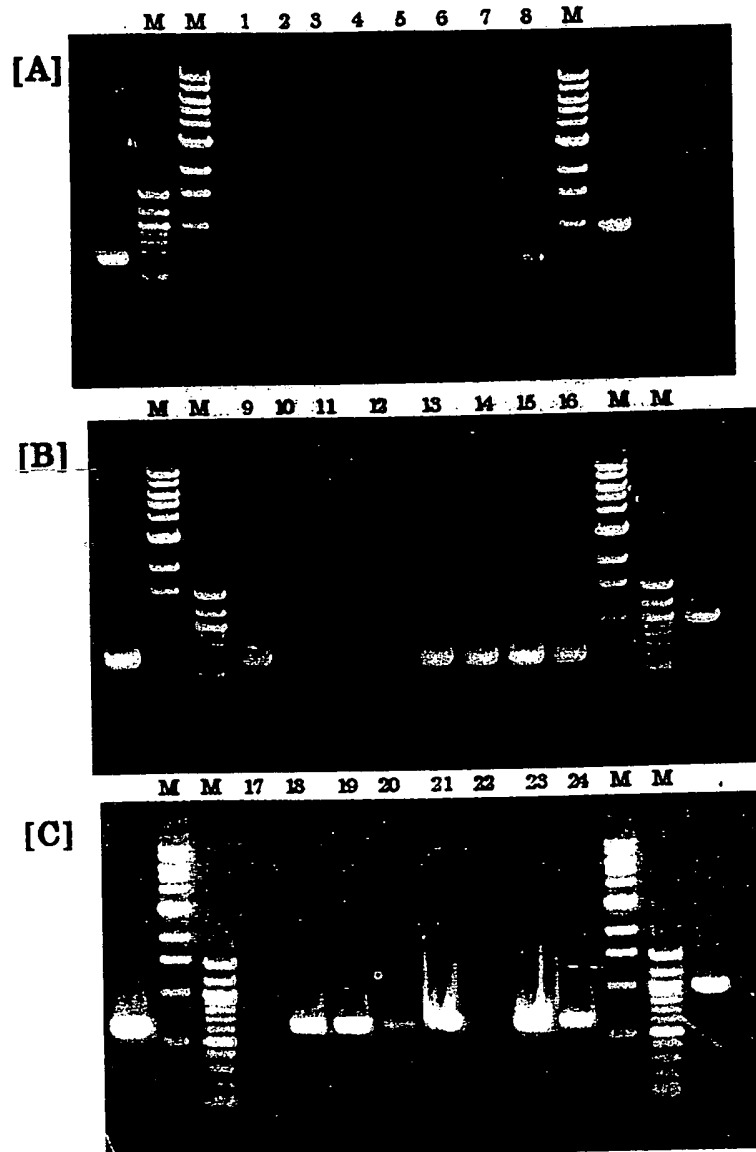


Figure 22

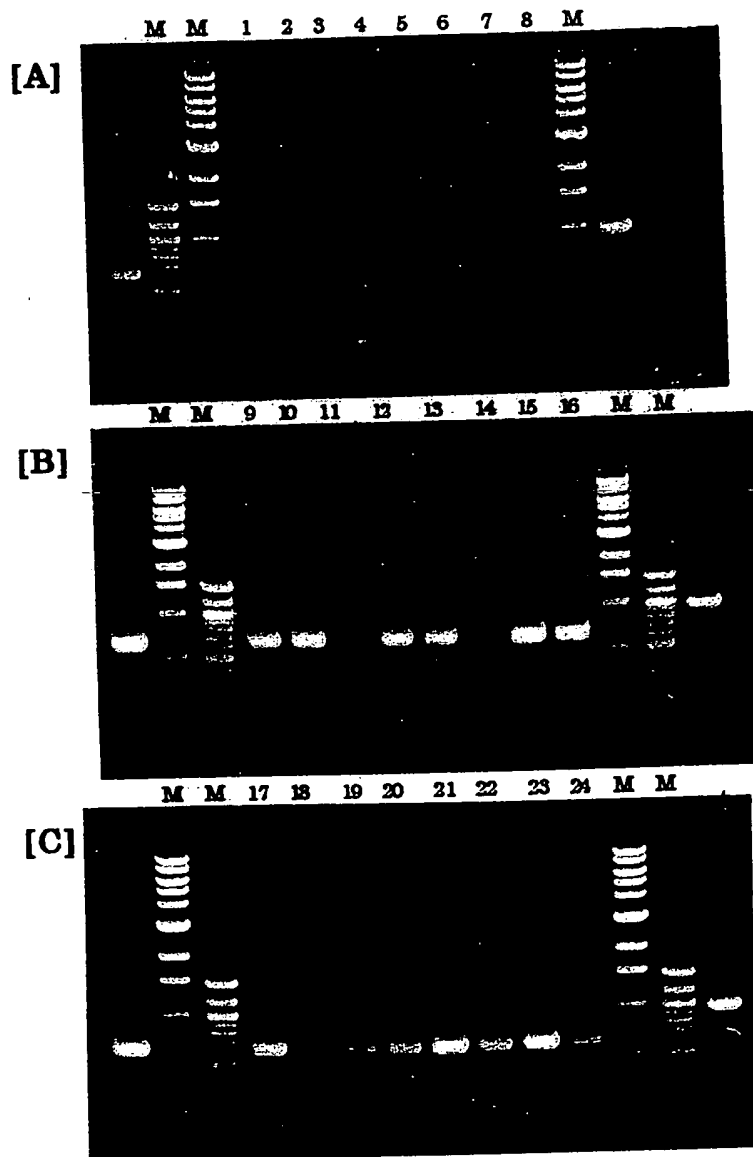


Figure 23

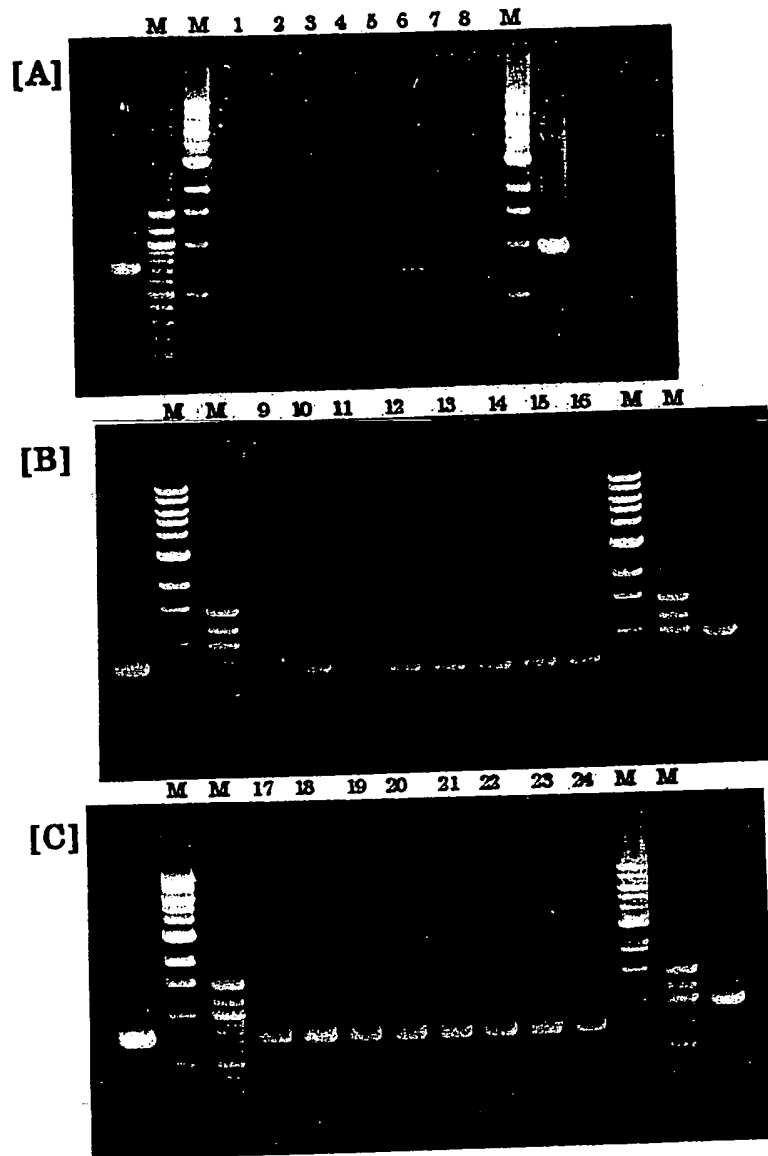


Figure 24

1 AAATGCCTAAAGAAGAATGACCATGGAAAATTATTCTATGGCAGCTCAGTTTGTCTTAGA
MetThrMetGluAsnTyrSerMetAlaAlaGlnPheValLeuAsp

61 TGGTTTAACACAGCAAGCAGAGCTCCAGCTGCCCCCTCTCCTCCTGTTCTGGGAATCTA
GlyLeuThrGlnGlnAlaGluLeuGlnLeuProLeuPheLeuLeuPheLeuGlyIleTyr

121 TGTGGTCACAGTAGTGGGCAACCTGGGCATGATTCTCCTGATTGCAGTCAGCCCTCTACT
ValValThrValValGlyAsnLeuGlyMetIleLeuLeuIleAlaValSerProLeuLeu
TM-I

181 TCACACCCCATGTACTATTTCCTCAGCAGCTTGTCTTCGTCGATTCTGCTATTCTCTC
HisThrProMetTyrTyrPheLeuSerSerLeuSerPheValAspPheCysTyrSerSer
TM-II

241 TGTCACTACTCCCAAATGCTGGTGAACCTCCTAGGAAAGAAGAATACAATCCTTTACTC
ValIleThrProLysMetLeuValAsnPheLeuGlyLysLysAsnThrIleLeuTyrSer

301 TGAGTGCATGGTCCAGCTCTTTTCTTTGTGGTCTTTGTGGTGGCTGAGGGTTACCTCCT
GluCysMetValGlnLeuPhePhePheValValPheValValAlaGluGlyTyrLeuLeu
TM-III

361 GACTGCCATGGCATATGATCGCTATGTTGCCATCTGTAGCCCACTGCTTTATAATGCGAT
ThrAlaMetAlaTyrAspArgTyrValAlaIleCysSerProLeuLeuTyrAsnAlaIle

421 CATGTCCTCATGGGTCTGCTCACTGCTAGTGCTGGCTGCCTTCTTCTGGGCTTTCTCTC
MetSerSerTrpValCysSerLeuLeuValLeuAlaAlaPhePheLeuGlyPheLeuSer
TM-IV

481 TGCCTTGACTCATACAAGTGCCATGATGAACTGTCTTTTGCAAATCCCACATTATCAA
AlaLeuThrHisThrSerAlaMetMetLysLeuSerPheCysLysSerHisIleIleAsn

541 CCATTACTTCTGTGATGTTCTTCCCTCCTCAATCTCTCCTGCTCCAACACACACCTCAA
HisTyrPheCysAspValLeuProLeuLeuAsnLeuSerCysSerAsnThrHisLeuAsn

601 TGAGCTTCTACTTTTATCATTGCGGGGTTAACACCTTGGTGCCACCCTAGCTGTTGC
GluLeuLeuLeuPheIleIleAlaGlyPheAsnThrLeuValProThrLeuAlaValAla
TM-V

661 TGTCTCCTATGCCTTCATCCTCTACAGCATCCTTCACATCCGCTCCTCAGAGGGCCGGTC
ValSerTyrAlaPheIleLeuTyrSerIleLeuHisIleArgSerSerGluGlyArgSer

721 CAAAGCTTTTGAACATGCAGCTCTCATCTCATGGCTGTGGTGATCTTCTTTGGGTCCAT
LysAlaPheGlyThrCysSerSerHisLeuMetAlaValValIlePhePheGlySerIle
TM-VI

781 TACCTTCATGTATTTCAAGCCCCCTTCAAGTAACTCCCTGGACCAGGAGAAGGTGTCCTC
ThrPheMetTyrPheLysProProSerSerAsnSerLeuAspGlnGluLysValSerSer

841 TGTGTTCTACACCACGGTGATCCCCATGCTGAACCCCTTTAATATACAGTCTGTAATCACA
ValPheTyrThrThrValIleProMetLeuAsnProLeuIleTyrSerLeu***
TM-VII

901 GCACTTTGGAAGGCTGAGGCAGGTTGCTTGAGTCCAGTTTGAGACCATCCTGGGGAACA

961 TAGTGCGATCTTGTTTCTTTCCACTGCCTAAAACTTCAATGCTCAATTTTACTTGCAAT

1021 TTCCTCTCCTGACATGGAGAATGTTGGCTTGGAAATGTTT

Figure 25

1 ATTTTGAAGACAAAAATGCTGGCTAGAAACAACTCCTTAGTGACTGAATTTATTCTTG
MetLeuAlaArgAsnAsnSerLeuValThrGluPheIleLeuAla

61 CTGGATTACAGATCGTCCAGAGTTCTGGCAACCCTTCTTTTCCGTTCCTAGTGATCT
GlyLeuThrAspArgProGluPheTrpGlnProPhePhePheLeuPheLeuValIleTyr

121 ACATTGTCACCATGGTAGGCAACCTTGGCTTGATCACTCTTTTCCGTCTAAATTCTCACC
IleValThrMetValGlyAsnLeuGlyLeuIleThrLeuPheGlyLeuAsnSerHisLeu
TM-I

181 TCCACACACCAATGTACTATTTCCCTCTTCAATCTCTCCTTCATTGATCTCTGTTACTCCT
HisThrProMetTyrTyrPheLeuPheAsnLeuSerPheIleAspLeuCysTyrSerSer
TM-II

241 CTGTTTTCACCTCCAAAATGCTAATGAACTTTGTGTCAAAAAGAATATTATCTCCAATG
ValPheThrProLysMetLeuMetAsnPheValSerLysLysAsnIleIleSerAsnVal

301 TTGGGTGCATGACTCGGCTGTTTTCTTCTCTTTTTCGTATCTCTGAATGTTACATGT
GlyCysMetThrArgLeuPhePhePheLeuPhePheValIleSerGluCysTyrMetLeu
TM-III

361 TGACCTCAATGGCATATGATCGCTATGTGGCCATCTGTAATCCATTGCTGTATAAGGTCA
ThrSerMetAlaTyrAspArgTyrValAlaIleCysAsnProLeuLeuTyrLysValThr

421 CCATGTCCCATCAGGTCTGTCTATGCTCACTTTTGCTGCTTACATAATGGGATTGGCTG
MetSerHisGlnValCysSerMetLeuThrPheAlaAlaTyrIleMetGlyLeuAlaGly
TM-IV

481 GAGCCACGGCCACACCGGTGCATGTTTAGACTCACCTTCTGCAGTGCTAATATCATT
AlaThrAlaHisThrGlyCysMetPheArgLeuThrPheCysSerAlaAsnIleIleAsn

541 ACCATTACTTGTGTGACATACTCCCCCTCCTCCAGCTTTCCTGCACCAGCACCTATGTCA
HisTyrLeuCysAspIleLeuProLeuLeuGlnLeuSerCysThrSerThrTyrValAsn

601 ACGAGGTGGTTGTCTCATTGTGTGGGTACTAATATCACGGTACCCAGTTGTACCATCC
GluValValValLeuIleValValGlyThrAsnIleThrValProSerCysThrIleLeu
TM-V

661 TCATTTCTTATGTTTTCATTGTCACTAGCATTCTTCATATCAAATCCACTCAAGGAAGAT
IleSerTyrValPheIleValThrSerIleLeuHisIleLysSerThrGlnGlyArgSer

721 CAAAAGCCTTCAGTACTTGTAGCTCTCATGTCTGCTCTGTCTGTTTTTGGGTGAG
LysAlaPheSerThrCysSerSerHisValIleAlaLeuSerLeuPhePheGlySerAla
TM-VI

781 CGGCATTCATGTATATTAAATATTCTTCTGGATCTATGGAGCAGGAAAGTTTTTCTG
AlaPheMetTyrIleLysTyrSerSerGlySerMetGluGlnGlyLysValPheSerVal

841 TTTTCTACACTAATGTGGTGCCCATGCTCAATCCCCTCATCTACAGTTTGAGGAACAAGG
PheTyrThrAsnValValProMetLeuAsnProLeuIleTyrSerLeuArgAsnLysAsp
TM-VII

901 ATGTCAAAGTTGCACTGAGGAAAGCTCTGATTAAATTCAGAGGAGAAATATATTCTAAT
ValLysValAlaLeuArgLysAlaLeuIleLysIleGlnArgArgAsnIlePhe***

961 TAGAAGCAGTAATGATGTAAAACAATTGAAGGACTTCAAATTTTTATTAGTGTTTTTCAT

1021 GAAGAGATTTTGTGTTTCTACAGATGGTGTTATGTGTGATTTAATAAAA

Figure 26

1 ATTTTGAAGACAAAAATGCTGGCTAGAAACAACCTCCTTAGTGACTGAATTTATTCTTG
MetLeuAlaArgAsnAsnSerLeuValThrGluPheIleLeuAla

61 CTGGATTAACAGATCGTCCAGAGTCCGGCAACCCCTCTTTTCTGTTTCTAGTGATCT
GlyLeuThrAspArgProGluPheArgGlnProLeuPhePheLeuPheLeuValIleTyr

121 ACATTGTCACCATGGTAGGCAACCTTGGCTTGATCATTCTTTTCGGTCTAAATTCTCACC
IleValThrMetValGlyAsnLeuGlyLeuIleIleLeuPheGlyLeuAsnSerHisLeu
TM-I

181 TCCACACACCAATGTACTATTTCTCTTCAATCTCTCCTTCATTGATCTCTGTTACTCCT
HisThrProMetTyrTyrPheLeuPheAsnLeuSerPheIleAspLeuCysTyrSerSer
TM-II

241 CTGTTTTCTACTCCCAAATGCTAATGAACCTTGTATCAAAAAGAATATTATCTCCTATG
ValPheThrProLysMetLeuMetAsnPheValSerLysLysAsnIleIleSerTyrVal

301 TTGGGTGCATGACTCAGCTGTTTTCTTTCTCTTTTTTGTCTCTCTGAATGCTACATAT
GlyCysMetThrGlnLeuPhePhePheLeuPhePheValIleSerGluCysTyrIleLeu
TM-III

361 TGACCTCAATGGCATATGATCGCTATGTGGCCATCTGTAATCCATTGCTGTATAAGGTCA
ThrSerMetAlaTyrAspArgTyrValAlaIleCysAsnProLeuLeuTyrLysValThr

421 CCATGTCCCATCAGGTCTGTTCTATGCTCACTTTTGCTGCTTACATAATGGGATTGGCTG
MetSerHisGlnValCysSerMetLeuThrPheAlaAlaTyrIleMetGlyLeuAlaGly
TM-IV

481 GAGCCACGGCCACACCGGGTGCATGCTTAGACTCACCTTCTGCAGTGCTAATATCATCA
AlaThrAlaHisThrGlyCysMetLeuArgLeuThrPheCysSerAlaAsnIleIleAsn

541 ACCATTACTTGTGTGACATACTCCCCCTCCTCCAGCTTTCCTGCACCAGCACCTATGTCA
HisTyrLeuCysAspIleLeuProLeuLeuGlnLeuSerCysThrSerThrTyrValAsn

601 ACGAGGTGGTGTCTCTCATTGTTGTGGGTATTAATATCATGGTACCCAGTTGTACCATCC
GluValValValLeuIleValValGlyIleAsnIleMetValProSerCysThrIleLeu
TM-V

661 TCATTCTTATGTTTTTATTGTCAGTACTTCTCATATCAAATCCACTCAAGGAAGAT
IleSerTyrValPheIleValThrSerIleLeuHisIleLysSerThrGlnGlyArgSer

721 CAAAAGCCTTCAGTACTGTAGCTCTCATGTCTGCTCTGTTTCTGTTTGGGTGAG
LysAlaPheSerThrCysSerSerHisValIleAlaLeuSerLeuPhePheGlySerAla
TM-VI

781 CGGCATTGATGATATTAATATTCTTCTGGATCTATGGAGCAGGAAAAGTTTCTTCTG
AlaPheMetTyrIleLysTyrSerSerGlySerMetGluGlnGlyLysValSerSerVal

841 TTTTCTACACTAATGTGGTGGCCATGCTCAATCCTCTCATCTACAGTTTGAGGAACAAGG
PheTyrThrAsnValValProMetLeuAsnProLeuIleTyrSerLeuArgAsnLysAsp
TM-VII

901 ATGTCAAAGTTGCACTGAGGAAAGCTCTGATTAAAATTCAGAGAAGAAATATATTCTAAT
ValLysValAlaLeuArgLysAlaLeuIleLysIleGlnArgArgAsnIlePhe***

961 TAGAAGCAGTAATAATGTAAAACGATTGAAGAACTTTAAATTTTATTAGTGTGTTCCAT

1021 GAAGAGATTTGTTGTTTCTACAGATGGTGTATGTGTGATTTAATAAA

Figure 27

1 ACAGCTCGCCAAGAGAGAATGACTCTGAGAAACAGCTCCTCAGTGACTGAGTTTATCCTT
 MetThrLeuArgAsnSerSerSerValThrGluPheIleLeu

 61 GTGGGATTATCAGAACAGCCAGAGCTCCAGCTCCCTCTTTTCTTCTATTCTTAGGGATC
 ValGlyLeuSerGluGlnProGluLeuGlnLeuProLeuPheLeuLeuPheLeuGlyIle

 121 TATGTGTTCACTGTGGTGGGCAACTTGGGCTTGATCACCTTAATTGGGATAAATCCTAGC
TyrValPheThrValValGlyAsnLeuGlyLeuIleThrLeuIleGlyIleAsnProSer
 TM-I
 181 CTTCACACCCCATGTACTTTTCTCTTCAACTTGTCCTTTATAGATCTCTGTTATTCC
 LeuHisThrProMetTyrPhePheLeuPheAsnLeuSerPheIleAspLeuCysTyrSer
 TM-II
 241 TGTGTGTTTACCCCCAAAATGCTGAATGACTTTGTTTCAGAAAGTATCATCTCTTATGTG
CysValPheThrProLysMetLeuAsnAspPheValSerGluSerIleIleSerTyrVal

 301 GGATGTATGACTCAGCTATTTTCTTCTGTTTCTTTGTCAATTCTGAGTGCTATGTGTTG
 GlyCysMetThrGlnLeuPhePhePheCysPhePheValAsnSerGluCysTyrValLeu
 TM-III
 361 GTATCAATGGCCTATGATCGCTATGTGGCCATCTGCAACCCCTGCTCTACATGGTCACC
ValSerMetAlaTyrAspArgTyrValAlaIleCysAsnProLeuLeuTyrMetValThr

 421 ATGTCCCCAAGGCTCTGCTTTCTGCTGATGTTGGTTCCTATGTGGTAGGGTTGCTGGG
 MetSerProArgValCysPheLeuLeuMetPheGlySerTyrValValGlyPheAlaGly
 TM-IV
 481 GCCATGGCCCACTGGAAGCATGCTGCGACTGACCTTCTGTGATTCCAACGTCATTGAC
AlaMetAlaHisThrGlySerMetLeuArgLeuThrPheCysAspSerAsnValIleAsp

 541 CATTATCTGTGTGACGTTCTCCCCCTCTTGACGCTCTCCTGCACCAGCACCCATGTCACT
 HisTyrLeuCysAspValLeuProLeuLeuGlnLeuSerCysThrSerThrHisValSer

 601 GAGCTGGTATTTTTCATTGTTGTTGGAGTAATCACCATGCTATCCAGCATAAGCATCGTC
GluLeuValPhePheIleValValGlyValIleThrMetLeuSerSerIleSerIleVal
 TM-V
 661 ATCTCTTACGCTTTGATACTCTCCAACATCCTCTGTATTCTTCTGCAGAGGGCAGATCC
IleSerTyrAlaLeuIleLeuSerAsnIleLeuCysIleProSerAlaGluGlyArgSer

 721 AAAGCCTTTAGCACATGGGGCTCCACATAATTGCTGTTGCTCTGTTTTTGGGTGAGG
 LysAlaPheSerThrTrpGlySerHisIleIleAlaValAlaLeuPhePheGlySerGly
 TM-VI
 781 ACATTACCTACTTAACAACATCTTTCTGCTCTATGAACCATGGCAGATTGCTCA
ThrPheThrTyrLeuThrThrSerPheProGlySerMetAsnHisGlyArgPheAlaSer

 841 GTCTTTTACACCAATGTGGTTCCTGCTTAACCTTCGATCTACAGTTTGAGGAATAAG
ValPheTyrThrAsnValValProMetLeuAsnProSerIleTyrSerLeuArgAsnLys
 TM-VII
 901 GATGATAAACTTGGCCTGGGCAAAACCTGAAGAGAGTGCTCTTCTAATGGGTCTCTTCA
 AspAspLysLeuAlaLeuGlyLysThrLeuLysArgValLeuPhe***

 961 TATCACTGGCAACCGA

Figure 28

OLF1 MEPTD-RMYT -LVTEFILLG FPTRPELOIV LFLMFLTYA IILIGNIGLM LI RIDPHLO
 OLF2 M---D---MQS S-TPGFLLLG FSEHPGLGRT LFVDVITSYL LTLVGNTLII LI ALDTKLH
 OLF3 MG-TD---MOT -WVSEFILLG LSSDWDTRVS LPVLFVMTV VTVLGNCLIV LI RLDSRLH
 11-1 M--TME-MYS M-AAQFVLDG LTOQAELOLP LFLFLGIYV VTVVGNLGM I LI AVSPLLH
 * * * * * ** * ** *
 OLF1 TPHYFFLSNL SPVDLCYFSD IVPKMLVNFL SENKSISYYG CALQFYFFCT FADTESFILA
 OLF2 SPHYFFLSNL SFLDLCPTTS CVPOMLANLW GPKKTISFLD CSVQIFIFLS LGTECIIMK
 OLF3 TPHYFFLTNL SLVDVSYATS VVPQLLAHFL AEHKAIPFOS CAAQLFFSLA LGGIEFVLLA
 11-1 TPHYFFLSSL SPVDFCYSSV ITPKMLVNFL GKKNITILYSE CMVQLFFV FVVAEGVILT
 *** ** * * * * * * * *
 OLF1 AMAYDRYVAI CNPLLYTVVM SRGICMRLIV LSYLGGMSS LVHTSFAFIL KYCDKNVINH
 OLF2 VMAFDRYVAV CQPLHYATII HPRLCWOLAS VAWVIGLVGS VVQTPSTLHL PFCPDROVDD
 OLF3 VMAFDRYVAV CDALRYSAIM HGGLCARLAI TSWVSGFISS PVQTAITFOL PMCRNKFIDH
 11-1 AMAYDRYVAI CSPLLYNAM SSWVCSLLVL AAFFLGFLSA LHTTSAMMKL SPCKSHIINH
 ** * * * * * * * *
 OLF1 FFCDLPLLK LSCDTTINE WLLSTYGSSV EIICFIIIII SYFFILLSVL KIRSFSGRKK
 OLF2 FVCEVPALIR LSCEDTSYNE IQVAVASVFI LUVPLSLILV SYGAIWAVL RINSATAWRK
 OLF3 ISCELLAVVR LACVDTSNE VTIMVSSIVL LMTPLCLVLL SYIQIISTIL KIQSREGRKK
 11-1 YFCDVPLLN LSCSNTHLNE LLLFIIAGFN TLVPTLAVAV SYAFILYSIL HIRSEGRSK
 * * * * * ** * * * *
 OLF1 TFSTCASHLT SVTIYQGTL FLYSRPSYLY SPNTDKIISV FYTIFIPVLN PLIYSLRNKD
 OLF2 AFGTCSSHLT VVTLFYSSVI AVYLOPKNPY AQGRGKFFGL FYAVGTPSLN PLVYTLRNKE
 OLF3 APHTCASHLT VVALCYGVAI FTYIQPHSSP SVLQEKLFV FYAILTPMLN PMYSLRNKE
 11-1 AFGTCSSHLM AVVIFFGSIT FMYFKPPSSN SLDQEKVSSV FYTTVIPMLN PLIYSL----
 * * * * * * * * * *
 OLF1 VKDAAEKVLR SKVDS--S
 OLF2 IKRALRRLLG KERDSRESWR AA
 OLF3 VKGAWQKLLW KFSG-LTSKL AT
 11-1 -----

Figure 29

OLF2 M---DNQ SSTPGFLLG FSEHPGLGRT LFVDVITSYL LTLVGNTLII LLSALDTKLH
 OLF3 MGT-DNQ THVSEFILLG LSSDWDTRVS LFVLFLVMYV VTVLGNCLIV LLIRLDSRLH
 11-2 MLAR-NN SLVTEFILAG LTDRPEFWQP FFFLFLVIYI VTHVGNLGLI TLFGLNSHLH
 * * * * * * * * * *
 OLF2 SPHYFFLSNL SFLDLCFTTS CVPQMLANLW GPKKTISPLD CSVQIFIFLS LGTTECILMK
 OLF3 TPHYFFLTNL SLVDVSYATS VVPQLLAHFL AEHKAIPFQS CAAQLFFSLA LGGIEFVLLA
 11-2 TPHYFFLNL SFIDLCYSSV FTPKMLMNFV SKKNIISNVG CHTRLFFPLF FVISECYMLT
 *** ** * * * * * * * * * *
 OLF2 VMAFDRYVAV CQPLHYATII HPRLCWQLAS VAWVIGLVGS VVQTPSTLHL PFCPDRQVDD
 OLF3 VMAYDRYVAV CDALRYSAIM HGGLCARLAI TSWVSGFISS PVQTAITFQL PMCRNKFIDH
 11-2 SHAYDRYVAI CNPLLYKVTM SHQVCSMLTF AAYIMGLAGA TAHTGCMFRL TFCSANIINH
 ** ***** * * * * * * * * * *
 OLF2 FVCEVPALIR LSCEDTSYNE IQVAVASVFI LVVPLSLILV SYGAITWAVL RINSATAWRK
 OLF3 ISCELLAVVR LAQVDTSNE VTINVSSIVL LMTPLCLVLL SYIQIISTIL KIQSREGRKK
 11-2 YLCDILPLLQ LSCTSTYVNE VVVLIVVGTN ITVPSTILI SYVFIVTSIL HIKSTQGRSK
 * * * * * * * * * *
 OLF2 AFGTCSSHLT VVTLFYSSVI AVYLQPKNPY AQGRGKFFGL FYAVGTPSLN PLVYTLRNKE
 OLF3 AFHTCASHLT VVALCYGVAI FTYIQPHSSP SVLQEKLFVS FYAILTPMLN PMIYSLRNKE
 11-2 AFSTCSSHVI ALSLFFGSAA FMYIKY-SSG SMEQGVFSV FYTNVVPMLN PLIYSLRNKD
 ** ** * * * * * * * * * *
 OLF2 IKRALRRLG KERDSRESWR AA
 OLF3 VKGAWQKLLW KFSGL-TSKL AT
 11-2 VKVALRKALI KIQ-RRN--I -F
 * * * *

Figure 30

OLF2 M---DNQ SSTPGFLLG FSEHPGLGRT LFVDVITSYL LTLVGNTLII LLSALDTKLH
 OLF3 MGT-DNQ TWSEFILLG LSSDWDTRVS LFVLPLVMYV VTVLGNCLIV LLIRLDSRLH
 11-3 MLAR-NN SLVTEFILAG LTRPEPRQP LFFLFLVIYI VTMVGNLGLI ILFGLNSHLH
 * * * * *
 OLF2 SPMYFFLSNL SFLDLCFTTS CVPQMLANLW GPKKTISFLD CSVQIFIFLS LGTTECILMK
 OLF3 TPMYFFLTNL SLVDVSYATS VVPQLLAHFL AEHKAIPFQS CAAQLFFSLA LGGIEFVLLA
 11-3 TPMYFFLNL SFIDLCYSSV FTPKMLMNFV SKKNIISYVG CMTQLFFFLP FVISECYILT
 *** ** * * * * *
 OLF2 VMAFDRYVAV CQPLHYATII HPRLCWQLAS VAWVIGLVGS VVQTPSTLHL PFCPDRQVDD
 OLF3 VMAYDRYVAV CDALRYSAIN HGGLCARLAI TSWVSGFISS PVQTAITFQL PMCENKFIIDH
 11-3 SMAYDRYVAI CNPLLYKVTH SHQVCSMLTF AAYIMGLAGA TAHTGCMLRL TFCSANIINH
 ** ***** * * * * *
 OLF2 FVCEVPALIR LSCEDTSYNE IQVAVASVFI LVVPLSLILV SYGAITWAVL RINSATAWRK
 OLF3 ISCELLAVVR LACVDTSNE VTIMVSSIVL LMTPLCLVLL SYIQIISTIL KIQSREGRKK
 11-3 YLCDILPLLQ LSCSTSYVNE VVVLIVVGIN IMVPSCTILI SYVFIVTSIL HIKSTQGRSK
 * * * * *
 OLF2 AFGTCSSHLT VVTLFYSSVI AVYLQPKNPY AQGRGKFFGL FYAVGTPSLN PLVYTLRNKE
 OLF3 AFHTCASHLT VVALCYGVAI FTYIQPHSSP SVLQEKLFVS FYAILTPMLN PMIYSLRNKE
 11-3 AFSTCSSHVI ALSLFFGSAA FMYIKY-SSG SMEQGVSSV FYTNVVPMLN PLIYSLRNKD
 ** ** * * * * *
 OLF2 IKRALRRLG KERDSRESWR AA
 OLF3 VKGAWQKLLW KFSGL-TSKL AT
 11-3 VKVALRKALI KIQ-RRN--I -F
 * * * *

Figure 31

OLF2 M---DNQ SSTPGFLLG FSEHPGLGRT LFVDVITSYL LTLVGNTLII LLSALDTKLH
 OLF3 MGT-DNQ TWVSEFILLG LSSDWDTRVS LFVFLVMYV VTVLGNCLIV LLIRLDSRLH
 11-4 MTLR-NS SSVTEFILVG LSEQPELQLP LFLFLGIYV FTVVGNLGLI TLIGINPSLH
 * * * * * ** * * * *
 OLF2 SPMYFFLSNL SFLDLCFTTS CVPQMLANLW GPKKTISFLD CSVQIFIFLS LGTTECILMK
 OLF3 TPMYFFLTNL SLVDVSYATS VVPQLLAHFL AEHKAIPFQS CAAQLFFSLA LGGIEFVLLA
 11-4 TPMYFFLFNL SFIDLCSYCV PTPKMLNDFV SES-IISYVG CMTQLFFFCF FVNSECYVLV
 ***** * * * * *
 OLF2 VMAYDRYVAV CQPLHYATII HPRLCWQLAS VAWVIGLVGS VVQTPSTLHL PFCPDRQVDD
 OLF3 VMAYDRYVAV CDALRYSAIN HGGLCARLAI TSWVSGFISS PVQTAITFQL PHCRNKFIDH
 11-4 SMAYDRYVAI CNPLLYMVTM SPRVCFLLMF GSYVVGFAA MAHTGSMLRL TFCDSNVIDH
 ** ***** * * * * *
 OLF2 FVCEVPALIR LSCEDTSYNE IQVAVASVFI LVVPLSLILV SYGAITWAVL RINSATAWRK
 OLF3 ISCELLAVVR LACVDTSSNE VTINVSSIVL LMTPLCLVLL SYIQIISTIL KIQSREGRKK
 11-4 YLCDVLPLLQ LSCTSTHVSE LVFFIVVGVI TMLSSISIVI SYALILSNIL CIPSAEGRSK
 * * * * * ** * * *
 OLF2 AFGTCSSHLT VVTLFYSSVI AVYLQPKNPY AQGRGKFFGL FYAVGTPSLN PLVYTLRNKE
 OLF3 AFHTCASHLT VVALCYGVAI FTYIQPHSSP SVLQEKLFVS FYAILTPMLN PHIYSLRNKE
 11-4 AFSTWGSIII AVALFFGSGT FTYLTTSFPG SMNHGRFASV FYTNVVPMLN PSIYSLRNKD
 ** * * * * *
 OLF2 IKRALRLLG KERDSRESWR AA
 OLF3 VKGAWQKLLW KPSGL-TSKL AT
 11-4 DKLALGKTL- K----R--VL -F
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